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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,414	06/23/2003	Akihiko Yamamoto	1692-031124	7747

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EXAMINER
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MUROMOTO JR, ROBERT H

ART UNIT	PAPER NUMBER
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3765

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/601,414	<b>Applicant(s)</b> YAMAMOTO, AKIHIKO	
	<b>Examiner</b> Robert H Muromoto, Jr.	<b>Art Unit</b> 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/8/04; 10/14/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wahhoud '726 in view of Thompson '139.

"726 teaches, "a multi-section (claim 5) reed for a pneumatic loom includes at least two partial reeds or reed sections that are arranged spaced apart from one another, and a respective reed filler member arranged in the gap between the two reed sections. A substantially continuous or through-going weft insertion air channel is formed by individual air channel sections that are respectively provided in the individual reed sections and reed filler member and that are substantially aligned with each other. (claim 1) In a transition region between a first air channel section and a second consecutive or following air channel section, an inlet end of the second air channel section is enlarged or widened in a funnel-shaped or tapering configuration relative to the cross-sectional

dimension of the remainder of the weft insertion air channel, and particularly the outlet end of the first air channel section.(claim 1 and 2) The enlarged tapering inlet

end of the air channel section provides a smooth transition allowing the inserted weft thread to travel without interference from one reed member to the next, even if the reed members are slightly out of alignment with each other (abstract)."

This teaching states that the weft air tunnel, defined by the hollow portions of the reed dents, transition from a larger cross-sectional dimension, on the inlet side, to a smaller cross-sectional dimension, on the exit side. This teaching corresponds to the depth and vertical dimension limitations in claims 1 and 2 since the cross-sectional dimension referred to by Wahhoud encompasses all dimensions in the cross-sectional plane. Also the funnel configuration, shown in the drawings, can be applied to the depth and vertical dimension limitations.

Wahhoud does not teach the backward projection of the rear edge sections that correspond to the hollow reed portions. However, Thompson '139 clearly teaches a reed profile, as shown in figure 3A that uses a wider profile in the reed corresponding to the hollow portion of the reed dent. This wider profile is used to provide the reed dent with increased ability to withstand stresses that often cause conventional reeds to fail.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to manufacture a reed dent with a backwardly projecting edge in the area corresponding to the hollow portion of the reed to provide the reed with increased ability to withstand stresses during the weaving process.

Pursuant to claim 3, the flat rear edge reed is the conventional profile for a reed and as evidence Thompson shows a prior art reed in figure 2 that uses a flat rear edge. Additionally, it is the examiner's position that with the combined teachings above it would have been an obvious variant to one of ordinary skill in the art to use the conventional flat rear edge reed on the reed dents that have smaller hollow portions at the exit side of the weft tunnel because the exit side reeds would basically be conventionally profiled reeds, as the reeds with the largest enlarged hollow portions would be on the inlet side of the weft tunnel.

Also claims 3-5 are considered product-by-process claims due to the recitations, "made flat" and "formed as", respectively.

"The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)."

"[T]he lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed

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and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972)."

In view of the similarities between the claimed invention, and that of the combined teachings above, it is reasonable to believe that the product made by the prior art process would be either identical to or only slightly different from the claimed product. In such a situation, the burden of proof shifts to applicant to prove that the claimed product is materially different.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References teaching reed dents with varying cross sectional depth for weft guiding have been cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H Muromoto, Jr. whose telephone number is 571-272-4991. The examiner can normally be reached on 8-530, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 703-305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bobby Muromoto  
March 16, 2005  
Patent Examiner

A handwritten signature in black ink, appearing to be 'Bobby Muromoto', written over a horizontal line.